Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

- 1-6. (canceled)
- 7. (currently amended) An ESD protection circuit, comprising:

one or more first diodes on a first area of P-substrate coupled in series between a supply voltage and a terminal pad, each of said one or more first diodes having an n+ and a p+ diffusion region in an N-well on a first area of P-substrate;

a second diode on said first area of P substrate coupled to a ground, said second diode having an n+ and a p+ diffusion region on said first area of P-substrate; and

one or more third diodes on a second area of P-substrate coupled in series between said terminal pad and said second diode, each of said one or more third diodes having an n+ and a p+ diffusion region on said a second area of P-substrate separated by a deep N-well from said first area of P-substrate.

- 8-9. (canceled)
- 10. (previously presented) The ESD protection circuit of claim 7, wherein said first area of P-substrate is coupled to said ground.

- 11. (previously presented) The ESD protection circuit of claim 7, wherein an allowable signal swing at said terminal pad is greater than said supply voltage plus 1.4 V.
- 12. (previously presented) The ESD protection circuit of claim 7, wherein a forward turn-on voltage of each of said one or more first diodes, said second diode, and said one or more third diodes is approximately 0.7 V.
- 13. (currently amended) An ESD protection circuit, comprising:
- a first diode in a first N-well on a first area of P-substrate, said first diode having a cathode coupled to a supply voltage and an anode coupled to a cathode of;
- a second diode, said second diode in a second N-well on said first area of P-substrate, said second diode having a cathode coupled to an anode of said first diode and an anode coupled to a terminal pad; and
- a third diode on a second area of P-substrate separated by a deep N-well from said first area of P-substrate, said third diode having a cathode coupled to said terminal pad-and an anode coupled to a cathode of; and
- a fourth diode, said fourth diode on said first area of P-substrate, said fourth diode having a cathode coupled to an anode of said third diode and an anode coupled to a ground, wherein said third diode includes an n+ region on said second area of P-substrate separated by a deep N well from said first area of P substrate, and wherein said fourth diode includes an n+ region on said first area of P substrate.

- 14. (currently amended) The ESD protection circuit of claim 13, wherein said first diode and said second diode each includes an n+ and a p+ diffusion region in [[an]] said first and second N-wells, respectively, on said first area of P-substrate.
- 15. (previously presented) The ESD protection circuit of claim 13, wherein an interconnection node between said third diode and said fourth diode is isolated from said ground.
- 16. (previously presented) The ESD protection circuit of claim 13, wherein said first area of P-substrate is coupled to said ground.
- 17. (previously presented) The ESD protection circuit of claim 13, wherein an allowable signal swing at said terminal pad is greater than said supply voltage plus 1.4 V.
- 18. (previously presented) The ESD protection circuit of claim 13, wherein a forward turn-on voltage of each of said first diode, said second diode, said third diode, and said fourth diode is approximately 0.7 V.
- 19. (new) The ESD protection circuit of claim 13, wherein said third diode includes an n+ and a p+ diffusion region in said deep N-well.
- 20. (new) The ESD protection circuit of claim 13, wherein said fourth diode includes an n+ and a p+ diffusion region on said first area of P-substrate.

- 21. (new) The ESD protection circuit of claim 13, further comprising a plurality of said third diode coupled in series between said second diode and said fourth diode.
- 22. (new) The ESD protection circuit of claim 7, wherein an interconnection node between one of said third diodes and said second diode is isolated from said ground.